

Claims

1. An intrauterine fetal monitoring electrode assembly comprising:

5 a flexible insulating strip having a first and a second side on which to mount electrodes, and having an insertion end and a connector end;

a first electrode disposed on the first side of the insulating strip proximate the connector end;

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a second electrode disposed on the second side of the insulating strip proximate the connector end; and

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an electrical connector cable being an insulating sheath containing electrical leads, the electrical connector having a distal end attached to the connector end of the insulating strip and adapted to provide electrical connectivity between each electrode and a separate electrical lead disposed within the insulating sheath, and a proximal end adapted to be attachable to an input of a fetal monitor.

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2. The electrode assembly of claim 1, wherein the flexible insulating strip is a polyester film.

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3. The electrode assembly of claim 1, wherein the first and the second electrodes are plated onto the flexible insulating strip.

4. The electrode assembly of claim 1, wherein the first and the second electrodes are adhered to the flexible insulating strip.

5. The electrode assembly of claim 1, wherein the flexible insulating strip is polyester film and the electrodes are silver plated onto the polyester film strip.

6. The electrode assembly of claim 1, further comprising a finger grip fixed at the insertion end of one side of the flexible insulating strip.

7. The electrode assembly of claim 1, wherein the first side of the insulating strip contacts a maternal tissue *in utero*, and the second side contacts a fetal tissue.

8. The electrode assembly of claim 1, wherein either of the sides of the insulating strip has a plurality of electrodes disposed on that side.

9. The electrode assembly of claim 1, wherein the flexible strip has a width ranging from about 0.5 cm to about 2.0 cm, and a length ranging from about 4.0 cm to about 10.0 cm.

10. The electrode assembly of claim 1, wherein the electrodes have a tissue contacting surface comprising a layer of a conductivity enhancing material.

11. The electrodes of claim 10, wherein the conductivity enhancing material is a chloride of a conductive metal.

12. The electrode assembly of claim 1, wherein the electrode assembly is disposable.

13. The electrode assembly of claim 1, wherein the flexible insulating strip for mounting electrodes is reversibly detachable from the connector cable and is separately disposable.

14. The electrode assembly of claim 1, wherein the electrodes are contact electrodes.

5 15. The electrode assembly of claim 1, wherein the first electrode and/or the second electrode is a set of a plurality of electrodes.